

realized it was futile to attempt to make any more drives to the station, so no further attempts were made that year.

The following spring a new plan was adopted—or rather an old Indian plan known as "pounding" was rejuvenated. A fence was run across a narrow neck of land formed by an elbow of the Pend O'Rille River. This enclosed quite a large area of land. The steep cut banks of the river made escape impossible except in a few places. Nearly all these were fenced. On the opposite side of the river a wing fence was run out for six miles in one direction and another four miles at an angle in another direction. From the river bank where the fences converged to each other, back for a couple of miles, they were covered with white cotton so that the buffalo would not stampede through the fence. Several drives brought the buffalo down through the gap where they swam the river and climbed the bank on the other side into the pound. Then all possible approaches were fenced and the last phase of the trip began.

The buffalo were then driven into a small yard, loaded into huge vans carrying two animals, and hauled by six-horse teams to Ravalli.

Through the whole round up there were hair-raising episodes. Men escaped enraged buffalo without knowing just how. Fifty horses were lost, vans were smashed, cattle cars reinforced inside were wrecked, but somehow 700 buffalo were finally carried to the park at Wainwright.

There were left a few outlaws that could not be brought in, and these fell in a buffalo hunt in which a few invited guests participated with Michael Pablo, among them Colonel Cody, or as he was better known "Buffalo Bill."

Twenty years ago the buffalo was all but an extinct race. Through no foresight of the authoritative bodies, but of individuals, he was saved from extinction. Today he has returned to such numbers under the care of man that he has passed that stage of extinct or all but extinct animals. So far he has not proven himself amenable to domestication. Far from it. Even in the broad confines of Buffalo Park he must be treated as wild and at times dangerous. His future remains to be seen. From a herd of 800 in 1909 to 2,400 in 1916 is a fairly

rapid increase, and each year the increase will be more rapid.

We have spoken of the past—what of the future? The herds at Wainwright Park must be held by the people of Western Canada as a relic of more than usual interest. The buffalo have been brought back until there is now no danger of them slipping into absolute extinction unless some blunders are perpetrated. No doubt that these herds will supply specimens of this great race, original only to the plains, for the parks over the country, where curious people will gaze in wonder. What may be their place in the economic life of the country remains to be seen. That they might play a part is possible. Buffalo robes and buffalo meat might again become a part, though no great part, in the lives of the people of the country. We have areas of land that might well be turned into buffalo ranches where they could be bred not merely to perpetuate the race, but as a financial proposition and from which would come the robes and meat referred to. But this is for the future. We will for the time, rest content that the buffalo have been saved from extinction, and are reproducing and increasing under conditions controlled by man.—R. G. T.

Automobiles, Farm Machinery and Farm Motors.

Starting Cold Motors.

By this time, there has not been a part of Canada which has escaped at least one severe spell of cold weather, and so you are extremely fortunate if you have not had trouble starting your motor during a period of low temperature. In some isolated cases owners are able to start their cars in warm garages and return with them from continuous trips, thus avoiding any starting trouble. If, however, you have been compelled to leave your car exposed to zero weather, or if a friend of yours has been placed in a similar unfortunate position, you doubtless have been called upon to exercise the widest knowledge in overcoming trying obstacles. There are a number of excellent things to be done when a motor refuses to start. If the radiator is filled with plain water, it is always advisable to drain it off and substitute the warmest water possible. In many cases, however, the radiator may contain a valuable anti-freeze solution, and so it is not deemed advisable to drain it with a consequent loss in real money. The radiator cleaning action, however, can be followed if receptacles are handy for retaining the original liquid, which when the motor has been started, can be again placed in the radiator. If the use of hot water in the radiator does not give you results, it is always well to pour some on the front of the carburetor, but be very careful that none of it gets through the tickler to the gasoline inside. We also strongly suggest that you pour hot water on the intake manifold. If after carrying out these maneuvers you should again fail to develop power, you may find it an excellent idea to place very hot bricks or hot water bottles against the intake manifold and around the carburetor. The idea in all these movements is to encourage the development of quick vapour. Perhaps these methods may not bring gratifying results, but there is one that generally will, and that is the use of a blow torch on the intake manifold. We must insist that such a method be not adopted unless you are an expert, as you can readily understand that if a flame touches the gas or a wave of vapour from it, a disastrous fire is bound to take place. It has been said that an "ounce of pre-

vention is worth a pound of cure," and therefore you will be well advised to cover up your radiator with a robe or rug if you find it necessary to leave the car standing in a cold atmosphere any length of time. It is surprising how much heat can be retained in a radiator that is even partially enclosed with warm material. A great many rural districts now have electric lights, and a simple system for keeping the intake manifold warm is to burn a small incandescent lamp inside the hood covers, close to the intake manifold. The amount of heat from an ordinary lamp will maintain a temperature at which starting should be easy.

Cold weather also prompts us to give some advice regarding oil for winter use. Many of the brands which are sold at present are not entirely suitable for zero weather as they freeze readily and so make it difficult, in general, for the motor to operate, and in particular for the pump to handle the oil itself. In this, as in many other matters we do not expect our readers to use our judgment but rather to seek out the agents from whom their cars were purchased and secure from them information based upon experience.

Recently a circular has been sent out by a manufacturing firm of considerable prominence, and in it we read an interesting paragraph regarding the filling of radiators. The item states that, "Care should be observed especially in the case of block motors, to only fill the radiator about to the center of the name plate. The remaining space is required for natural expansion and if this is not provided for, the expanded water will only waste through the over-flow pipe, and under certain conditions, once the over-flow pipe becomes full, a syphoning action may set up, and this may continue until the level of the cooling system is below the radiator inlet. This condition shuts off the circulation and results in a heated motor. This is responsible for warping the cages, valves and cylinder." AUTO.

Greater Home Comforts.

Only two and one-half per cent. of the 400 farmers visited in connection with the Agricultural Survey of the

Commission of Conservation in 1915 had the complete service of water on tap, bath and toilet in their houses. Five per cent. had automobiles; 38 per cent. had pianos, 32 per cent. had organs, and 22 per cent. had gasoline engines on the farm. While it is well that 70 per cent. possess sufficient musical interest to have either a piano or organ in the house, it is regrettable indeed that 39 out of 40 have not installed the water service and bath.

No investment yields more in conserving the women's health and strength, in creating greater home comforts, and in elevating the general tone of the material side of living than the installation of water service and the sanitary conveniences in the home. Thousands of farmers who could well afford to do so have not put in the service for various reasons—because they have not thought of it, or because they do not know how to go about it, or because they think it too expensive. The cost is not so great as many imagine. A bath tub can be purchased for \$10.00, a sink basin for \$3.00, a closet for \$16.00, a 30-gallon hot-water tank for \$10.00. Various means are employed in obtaining pressure at the taps such as a force pump to elevate water to a tank in the attic or the pneumatic tank in the cellar, and the cost of piping and installation will vary according to circumstances.

One farmer had the hot-water attachment, tank, bath and dry closet installed for \$50.00, the farmer himself helping the plumber to do the work. The complete service, which would be used 365 days in the year, can be installed on the average farm for less than the farmer pays for the binder he uses for a few days at harvest time and which stands idle for the balance of the year. The man on the farm thinks he cannot get along without the many labor-saving devices. How about a labor saver for the farm women? It is unquestionably a common-sense business proposition to have the water service and bath in the house as a comfort to every member of the family, and a constant labor-saving convenience for those who do the daily recurring work of the household, the farm women.—F. C. N.

Canada's Young Farmers and Future Leaders.

Topics for Discussion for Young Farmers.

Each week we shall announce topics for discussion in this department. Three topics will appear each week during the winter season, with the dates upon which manuscript must be in our hands. Readers are invited to discuss one or more topics as they see fit. All articles published will be paid for in cash at a liberal rate. Make this department the best in the paper. This is the boys' and young man's opportunity. Here are the topics:

1. What is Needed to Make the Farm Home More Attractive to Boys and Girls?

Is it convenient, more attractive surroundings, or better live stock? Does the system of farming in vogue give an opportunity to mix with people in a commercial atmosphere, or must the young man remain too much on the land with production his only aim? What is lacking? Articles should reach us by Jan. 6th.

2. By-products of Production.

Give your experience in feeding skim-milk, whey and buttermilk to young pigs and shoats. What is their comparative feeding value for pigs of different ages. Give weights of milk and grain fed and gains made. Have you ever used whey for raising calves? If so, how much did you feed per day? How did the calves do compared with skim-milk calves? What results have you had in feeding root tops in the field or when hauled to stable? Give results of feeding bean and clover straw, stating amounts fed and class of stock. What value have small, unmarketable potatoes when fed to hogs? Which gives best results, feeding them whole, pulped or cooked? Some years there are many cull

apples for which there is no market. Can they be profitably fed to stock? Articles should reach this office by January 13.

3. What are the Gross Returns From Your Farm?

State number of acres in farm, and give gross returns from the different branches of farming. What does it cost to run the business? Have you authentic information as to which departments are the most profitable? Have you thought of a plan whereby the returns can be increased the coming year? If you haven't kept books you, no doubt, have an account of the stock and other material sold. Make a resume of an average season's operations and put it into an article of not more than 800 words, and let us have it by January 20.

Crop Competitions Teach Many Lessons.

EDITOR "THE FARMER'S ADVOCATE":

A great deal of excellent advice has been given by winners in field crop and acre-profit competitions as to the best methods of excelling in crop production. All have been very beneficial. But behind these winners have been dozens of "farmers" who have tried hard, yet we seldom hear of them. It may be interesting to learn of the fun and benefits we have received.

The first lesson we receive from field crop competitions, is that they take the conceit out of one about as quickly as anything. We were always fairly careful farmers, tilled the land well, fought weeds, and sowed, as we thought, good seed. A year or two ago, having a chance for a good crop, we entered the local crop competition in oats. The crop did well and, viewed through our rose-colored glasses, appeared hard to beat. The

editor of the local paper, on a driving tour, informed us "it was the best he had seen," and our hopes rose high. I had a place prepared for at least \$10 if not the \$20 prize. Alas! so much for expectations. In due time the judge arrived, accompanied by the vice-president of the agricultural society, just in time for dinner. It might have helped to have fed him first, but evidently he wasn't to be thus bribed. Before dinner he took a ramble through those oats. After praising mother's dinner sky-high, probably because it was gratis, they departed without the judge giving us a hint as to all the noxious weeds and other varieties he had seen in those oats, so we were quite unprepared for the blow which was to follow. A few days of suspense till the scores came out, and "biff," down came our conceit to zero. I really didn't expect it of that judge after our using him so nicely, but our oats were close contestants for bottom place. The fact that most of the prizes had gone to the other township, and that others in our community whom we had thought poor farmers were scored as high as ourselves, wasn't much consolation. Lesson No. 1 well learned; we began to see that others could farm also.

Lesson No. 2. Competitions teach one to take a trimming gracefully. It is a poor dub who can't be licked a little without getting angry. To parody an old verse:

It's easy enough to be pleasant,
When prizes come in by the score
But the chap that's worth while,
Can lose, and still smile
Without being peevish and sore.

So it teaches one to give the other fellow the credit due him, and to be good enough sport to tell him so. The third lesson is perseverance. The following year we got five bushels of special oats and tried again.